§ 219.22 Mineral resource.

Mineral exploration and development in the planning area shall be considered in the management of renewable resources. The following shall be recognized to the extent practicable in forest planning:

(a) Active mines within the area of land covered by the forest plan;

(b) Outstanding or reserved mineral rights;

(c) The probable occurrence of various minerals, including locatable, leasable, and common variety;

(d) The potential for future mineral development and potential need for withdrawal of areas from development;

(e) Access requirements for mineral exploration and development; and

(f) The probable effect of renewable resource prescriptions and management direction on mineral resources and activities, including exploration and development.

§ 219.23 Water and soil resource.

Forest planning shall provide for—

(a) General estimates of current water uses, both consumptive and nonconsumptive, including instream flow requirements within the area of land covered by the forest plan;

(b) Identification of significant existing impoundments, transmission facilities, wells, and other man-made developments on the area of land covered by the forest plan;

(c) Estimation of the probable occurrence of various levels of water volumes, including extreme events which would have a major impact on the planning area;

(d) Compliance with requirements of the Clean Water Act, the Safe Drinking Water Act, and all substantive and procedural requirements of Federal, State, and local governmental bodies with respect to the provision of public water systems and the disposal of waste water;

(e) Evaluation of existing or potential watershed conditions that will influence soil productivity, water yield, water pollution, or hazardous events; and

(f) Adoption of measures, as directed in applicable Executive orders, to minimize risk of flood loss, to restore and preserve floodplain values, and to protect wetlands.

§ 219.24 Cultural and historic resources.

Forest planning shall provide for the identification, protection, interpretation, and management of significant cultural resources on National Forest System lands. Planning of the resource shall be governed by the requirements of Federal laws pertaining to historic preservation, and guided by paragraphs (a)(1) through (a)(3) of this section.

(a) Forest planning shall—

(1) Provide an overview of known data relevant to history, ethnography, and prehistory of the area under consideration, including known cultural resource sites;

(2) Identify areas requiring more intensive inventory;

(3) Provide for evaluation and identification of appropriate sites for the National Register of Historic Places;

(4) Provide for establishing measures for the protection of significant cultural resources from vandalism and other human depredation, and natural destruction;

(5) Identify the need for maintenance of historic sites on, or eligible for inclusion in, the National Register of Historic Places; and

(6) Identify opportunities for interpretation of cultural resources for the education and enjoyment of the American public.

(b) In the formulation and analysis of alternatives, interactions among cultural resources and other multiple uses shall be examined. This examination shall consider impacts of the management of cultural resources on other uses and activities and impacts of other uses and activities on cultural resource management.

(c) Formulation and evaluation of alternatives shall be coordinated to the extent feasible with the State cultural resource plan and planning activities of the State Historic Preservation Office and State Archaeologist and with other State and Federal agencies.

§ 219.25 Research natural areas.

Forest planning shall provide for the establishment of Research Natural Areas (RNA's). Planning shall make

provision for the identification of examples of important forest, shrubland, grassland, alpine, aquatic, and geologic types that have special or unique characteristics of scientific interest and importance and that are needed to complete the national network of RNA's. Biotic, aquatic, and geologic types needed for the network shall be identified using a list provided by the Chief of the Forest Service. Authority to establish RNA's is delegated to the Chief at 7 CFR 2.60(a) and 36 CFR 251.23. Recommendations for establishment of areas shall be made to the Chief through the planning process.

§ 219.26 Diversity.

Forest planning shall provide for diversity of plant and animal communities and tree species consistent with the overall multiple-use objectives of the planning area. Such diversity shall be considered throughout the planning process. Inventories shall include quantitative data making possible the evaluation of diversity in terms of its prior and present condition. For each planning alternative, the interdisciplinary team shall consider how diversity will be affected by various mixes of resource outputs and uses, including proposed management practices. (Refer to § 219.27(g).)

§ 219.27 Management requirements.

The minimum specific management requirements to be met in accomplishing goals and objectives for the National Forest System are set forth in this section. These requirements guide the development, analysis, approval, implementation, monitoring and evaluation of forest plans.

(a) *Resource protection.* All management prescriptions shall—

(1) Conserve soil and water resources and not allow significant or permanent impairment of the productivity of the land;

(2) Consistent with the relative resource values involved, minimize serious or long-lasting hazards from flood, wind, wildfire, erosion, or other natural physical forces unless these are specifically excepted, as in wilderness;

(3) Consistent with the relative resource values involved, prevent or reduce serious, long lasting hazards and damage from pest organisms, utilizing principles of integrated pest management. Under this approach all aspects of a pest-host system should be weighed to determine situation-specific prescriptions which may utilize a combination of techniques including, as appropriate, natural controls, harvesting, use of resistant species, maintenance of diversity, removal of damaged trees, and judicious use of pesticides. The basic principle in the choice of strategy is that, in the long term, it be ecologically acceptable and compatible with the forest ecosystem and the multiple use objectives of the plan;

(4) Protect streams, streambanks, shorelines, lakes, wetlands, and other bodies of water as provided under paragraphs (d) and (e) of this section;

(5) Provide for and maintain diversity of plant and animal communities to meet overall multiple-use objectives, as provided in paragraph (g) of this section;

(6) Provide for adequate fish and wildlife habitat to maintain viable populations of existing native vertebrate species and provide that habitat for species chosen under § 219.19 is maintained and improved to the degree consistent with multiple-use objectives established in the plan;

(7) Be assessed prior to project implementation for potential physical, biological, aesthetic, cultural, engineering, and economic impacts and for consistency with multiple uses planned for the general area;

(8) Include measures for preventing the destruction or adverse modification of critical habitat for threatened and endangered species;

(9) Provide that existing significant transportation and utility corridors and other significant right-of-ways that are capable and likely to be needed to accommodate the facility or use from an additional compatible right-of-way be designated as a right-of-way corridor. Subsequent right-of-way grants will, to the extent practicable, and as determined by the responsible line officer, use designated corridors;

(10) Ensure that any roads constructed through contracts, permits, or leases are designed according to standards appropriate to the planned uses,